Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

## NOVEMBER 27.

The President, Dr. LEIDY, in the chair.

Forty-two persons present.

*Note on Two New California Spiders and their Nests.*—Rev. Dr. McCOOK presented a small collection of spiders received from Mr. W. G. Wright, San Bernardino, Cal., mailed November 18. One of these came within a nest, and is a Saltigrade spider, probably an *Attus*. The nest is a rare one, and was so happily placed, by the builder, on a branch of sagebrush (*Ephedra antisyphillitica*), that it was preserved intact. It is the only one which Mr. Wright had seen in site. Another nest, which he had no doubt was the same, he had observed torn from its place by some bird, as material for the construction of a bird's-nest.

Nests somewhat similar are habitually made by Pennsylvania Saltigrades upon or among leaves which shrink up as they die and tear the spinning work so as to destroy the specimen. The one exhibited was in perfect condition. It is the tent and egg-nest of the species which was alive within it, and the speaker thought to be new. It is a large example, five-eighths inch in body-length, stout, the legs of moderate thickness, the whole animal covered closely with grayish white hairs, the skin beneath being black. Dr. McCook named the species, provisionally, *Attus opifex*, with a double reference to the discoverer (Mr. Wright) and the admirable housewright qualities of the aranead herself. The nest is externally an egg-shaped mass of white spinning-work, three inches long by two and one-half inches wide. The outer part consists of a mass of fine silken lines crossing in all directions and lashed to the twigs within which it is enclosed. This maze surrounds a sac or cell of thickly-woven sheeted silk, irregularly oval in shape, two inches long by one inch wide, and also attached to the surrounding twigs. At the bottom this cell or tent is pierced by a circular opening which serves the spider as the door of her domicile. It is the habit of her genus to live and hibernate within such a silken nest. Against one side of the tent within is spun a lenticular cocoon (double convex) of thick white silk, within which the eggs were placed. The young spiders when received had escaped from the cocoon, and occupied the package-box. They are about one-eighth inch long, resembling the mother, but less heavily coated with gray.

This collection also contained three specimens (♀) of the genus *Pucetia*, as defined by Thorell.[1] This genus belongs to the family Oxyopoidæ of the Citigrade spiders, to which it is doubtless properly relegated in spite of certain analogies with the Attoidæ (Saltigrades) on the one hand, and the Philodrominæ (Laterigrades) on the other. Mr. Wright calls them "jumping spiders." Hentz, who describes several species of *Oxyopes*, says that *O. salticus* leaps with more force and vivacity than an *Attus*.[1] Of *O. viridans* he thinks it possible that the mother carries its young like *Lycosa*. This family of spiders is arboreal in habit, is found on plants, with their legs extended, thus disguising themselves after the manner known as "mimicry," and springing upon their prey. The cocoon is usually conical, surrounded with points, placed in a tent made between leaves drawn together and lashed, and is sometimes of a pale greenish color. *O. viridans* will make a cocoon suspended mid-air by threads attached to the external prominences, which she will watch constantly from a neighboring site. Dr. McCook believed the species presented to be new; the body-length is fourteen millimetres; legs long, tapering, many long spines. The body is yellow and pale yellow; the cephalothorax striped longitudinally with bright red streaks; the abdomen marked above with red bell-shaped and angular patterns, and beneath by red streaks; the sternum red, the legs yellow with red rings at the joints. The species was named *Pucetia aurora*, because of the bright red streaks upon the yellow background, suggesting "the daughter of the dawn."

---

[1] See "On European Spiders, Novæ Acta Reg. Soci. Sci. Upsalensis," vol. vii, ser. 3d, p. 196.

According to some field-notes forwarded by Mr. Wright since the above was in print, *Pucetia aurora* is rather abundant in a limited locality. The nests are uniformly upon bushes of *Eriogonum corymbosum*, and several specimens of them were sent. The nest is hung from three to four feet from the ground, and, being upon the topmost twigs, is easily seen from a distance. The cocoon is a straw-colored sphere or ovoid, five-eighths of an inch in diameter. It is covered externally with various pointed rugosities, from which numerous lines extend to the adjoining foliage, and into the maze of right lines which extends below the corymb of the plant upon which all the specimens sent are attached. This retitelarian snare doubtless serves as a temporary home for the young spiders. The cocoon has no suture, the spiderlings escaping by cutting the case, which is thick and closely woven. No floss padding was found inside of the case.

Upon approaching the nest, the mother is usually seen hovering over the young spiders, or guarding a new sack of eggs. She lays two, and sometimes three broods on one twig. Sometimes the young ones will be still in the old nest, while the mother is guarding a new bundle of eggs immediately adjoining the old one. In no case were any young ones seen on the mother's back. The mother stays close by her nest. If the spiderlings be hatched, she will, perhaps, drop down a foot or so, if a first effort to capture her be not successful; but will not drop to the ground, unless forced to do so. If guarding her eggs, she must be forcibly separated from the cocoon. The young ones take alarm sooner than their mother; they drop down a few inches—or, at times, two feet—every one on its tiny thread, forming a pretty, swaying fringe. In a few moments, if all is still, they climb up again; but if frightened, will drop to the ground, and run. The little ones in such case do not jump.

---

[1] "Spiders of the United States," p. 48.

It is a further interesting fact in so-called "mimicry" that of several examples of *P. aurora* seen by Mr. Wright, one found on a *green* bush was in color almost wholly green, with scarcely a trace of red; while two found on a hoary-white bush had simulated the white color of their habitat. The specimens, as described above by Dr. McCook, approach in coloration the prevailing hue of the *Eriogonum* on which they were nested, and he was inclined to think that this is the normal color of the adult, which is taken on as the animal matures; indeed, as the green and whitish specimens were not sent to him, he would be inclined to think (awaiting further evidence) that those colors may have been due to immature age. At least, the tendency to such colors is strong in young spiders. However, the fact of mimicry is not improbable, as Dr. McCook had observed it in our native Laterigrades.

From the same gentleman and locality, Dr. McCook had received a ♀ specimen of *Argiope fasciata*, which is thus located upon the Pacific Coast, giving this beautiful and interesting spider a continental distribution.

*A Web-Spinning Neuropterous Insect.*—Dr. Henry C. McCook announced that a small neuropterous insect, *Psocus sexpunctatus*, had been recently found on the Wissahickon Creek, Fairmount Park, Philadelphia, by Mr. S. F. Aaron, of this Academy. This is the first time, so far as the speaker was aware, that this insect has been found in the United States, or indeed North America. Mr. Aaron took the insects home in the paper boxes in which he had collected them, and thus observed the fact which has heretofore been noted of the European species, that they *spin webs.* McLachlan[1] expresses the belief that both sexes possess the power of spinning a web, which, he affirms, is not distinguishable from that made by spiders. If a number of living specimens be enclosed in a pill-box, it will be found that at the end of a few hours the interior is traversed in all directions by numerous lines of web. Mr. McLachlan further states that the eggs, which are laid in clusters, are also protected with a web by the female. These insects are very common in England, where they are found more or less in societies, on tree-trunks, palings, amongst the herbage of trees, and even in houses. Mr. Aaron discovered them in similar habitat here, that is to say on the trunks of trees. A congener of the above species, *Psocus purus* Walsh, which is also found in the vicinity, makes a tubular or tent-like web in the furrows of bark and crevices of trees, in texture something like that spun by certain tube-weaving (Tubitelariæ) spiders and other species; or, perhaps more nearly like the covering woven over themselves by certain Lepidopterous larvæ. The insect lives under this tent precisely as do the spiders referred to. One who would capture them must push them out by pressing upon the tent.

---

[1] Monograph of the Brit. Psocidæ, Entom. Monthly Magz., vol. iii, 1866-67, p. 228.

It is a matter of such rare interest to find a true insect in the imago state spinning a web, and apparently for its protection, that Dr. McCook thought the discovery in our locality of such an insect worthy of this record. The spinning function among true insects, he believed, with the single exception of the Psocidæ, is confined to the larval state; spiders (it is scarcely necessary to state) not being true insects, but belonging to the Arachnida. The speaker further thought that this larval characteristic of web-spinning might be correlated with the rank which zoologists usually assign the Neuroptera as lowest among the orders of the insects, its larva-like body being one indication of its low position in its class. However, it is a striking example of the diverging and independent lines along which life-forms have sprung up in nature, that a function which belongs to the larval stage of insects, and which appears in the imago state only in the lowest type of the same, should appear as the most permanent and characteristic function of the spider—an animal which, although it is now commonly given a lower place in the same subkingdom with the insects (Arthropoda), is certainly very differently and little less highly organized. It would be a difficult task, Dr. McCook thought, to trace or even imagine any evolutionary connection, whether of progression or retrogression, between the web-spinning spider, the web-spinning insect-larva, and the web-spinning neuropterous imago *Psocus sexpunctatus*. There is, indeed, this common factor, the spinning function, but the physiologist fails to perceive any use or combination of the same which can unite the organisms in which it inheres.

Art. VI, Chap. X, of the By-Laws was amended by striking out from the first line the word "only," and from the second and third lines the words "obtain permission to," so that the article now reads: "Members and Correspondents of the Academy shall have free access to the library. Other persons may consult it at any time through the introduction of a member, or upon application to the librarian, while such member or librarian is present, but minors under sixteen years of age shall not be permitted to examine any work, except under the immediate supervision of the librarian or of a member."

Art. VII, Chap. XI, was amended by striking out all after the word "public," in the second line, and inserting in lieu thereof, "daily, except Sunday, and at least one day in the week without charge on such conditions and under such regulations as the Council shall establish from time to time," so that the article now reads: "The Museum of the Academy shall be open to the public daily, except Sunday, and at least one day in the week without charge, on such conditions and under such regulations as the Council shall from time to time establish."

The following were elected members: George L. Knowles, Ferdinand McCann, Lewis E. Levy, J. Alexander Savage, and Mrs. Wm. E. Ellicott.

The following were elected correspondents: E. Marie, of Paris, Marchese di Monterosato, of Palermo, and H. J. Carter, of Budleigh-Satterton, Devonshire, England.

The following were ordered to be printed:—